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NAVAL POSTGRADUATE SCHOOL
MONTEREY, CALIFORNIA

DECEMBER 1976

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NAVAL POSTGRADUATE SCHOOL

Monterey, California



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IMPERIAL IRANIAN NAVY OFFICERS
FOR MANAGEMENT EDUCATION

by

Mokhtar Malek

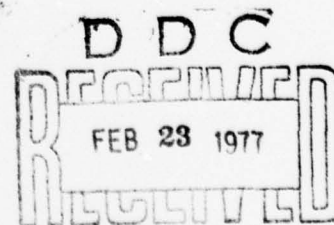
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A Proposal for Selection of
Imperial Iranian Navy Officers
for Management Education

by

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Submitted in partial fulfillments of the
requirements for the degree of

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ABSTRACT

The present situation of the Imperial Iranian Navy and its implications for the organization's management manpower are described. The current procedure of selection of naval officers for postgraduate education in management is analyzed, and the areas in which it needs improvement are examined.

Two sets of criteria to use for increasing the effectiveness of selection are developed. One category concerns the personal characteristics for selection of officers for management education, and the other concerns procedural factors for increasing the over-all effectiveness of the selection process.

Finally, on the basis of these criteria and characteristics, a selection model, feasible for the Imperial Iranian Navy, is proposed.

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INTRODUCTION

The present study deals with manager development. The focal organization is the Imperial Iranian Navy, an organization presently experiencing a critical period in its existence.

The tremendously high rate of expansion of the Imperial Iranian Navy (referred to as I. I. N. hereafter) in the past few years, along with the purchase of modern material and highly advanced weapon systems, has caused this organization to require competent human resources capable of coping with high work load and rapid technological sophistication. One implication has been the need for officers capable of efficiently managing these valuable people and material resources.

Traditionally, the organization's managerial billets have been filled with officers who had gained their managerial skills through experience in various functions of the organization and at different levels of responsibility. However, the new situation requires a more rapid and effective way of procuring such people. Because of the rapid expansion, on the other hand, the number of managerial positions throughout the organization has increased while continuing to impose still higher managerial demands on incumbents. Some of the new demands, such as analytical and quantitative problem-solving abilities, can be obtained only through formal training. So the I. I. N., like most other enterprises, has begun to educate some of its officers in the field of management.

At the beginning, when management education was being experienced for the first time, selection of officers for this kind of education was done informally. In the last few years, however, a more systematic selection procedure has been established. More attention is now paid to the educational background of selectees, thereby increasing their chances of successful completion of the courses of study, and maximizing possible benefits to the I. I. N.

Nonetheless, the present selection procedure needs modification if there is to be improved efficiencies. For example, under the present system of selection, judgement and evaluation of the personal characteristics of prospective managers is completely left to the commanding officers of separate units who recommend their subordinates for management education. This kind of judgement and evaluation may not always be compatible with the organization's needs and objectives.

The present study aims; first, at exploring the personal characteristics necessary for effective managerial job performance in the I. I. N. and, second, at proposing a selection model which provides for the assessment of personal characteristics.

Underlying the discussion of these personal characteristics of the prospective manager is Peter Drucker's statement regarding the core issue in manager education. The first question to answer in manager development is, as Drucker puts it, "What kind of managers or career professionals will this organization need tomorrow in order to achieve its objectives, and to perform in a different environment?"

[1,425]. One other point worth mentioning here is that in proposing a system which examines personal characteristics for managerial effectiveness, both the basic and the contingent characteristics have been considered. Of course the contingent characteristics have been proposed on the basis of the special situation of the I. I. N. at the present time and in the foreseeable future.

The study has been presented in four parts: treatment of the problem, description and discussion of the present system of selection, personal characteristics demanded from prospective managers in the I. I. N., and a proposed selection model.

PART I

THE PROBLEM

The high rate of expansion of the I.I.N. in the last five years and the expected pace of growth of this organization in the years to come¹ will necessarily call, among other things, for trained and capable managers to whom the key staff positions and perhaps a good percentage of the more important line billets would be assigned.

Recognition of this necessity by responsible authorities has already caused the I.I.N. to emphasize more than ever before management development efforts and especially management education. In the last two years, a number of Iranian naval officers, incomparable with any other year before, have been sent to the United States Naval Postgraduate School (the primary source of management education in use by the I.I.N.) for postgraduate education in different areas of the administrative science.²

¹A comparison of the number of units in service of the I.I.N. in 1971 (reported by Jane's Fighting Ships, 1970-1971) with that of 1976 (the same publication, 1975-1976) indicates an 88% increase in the last five years. The number of new units, ordered only during fiscal year 1975-1976, equals 33% of the total number of the naval units presently in possession of this navy.

²Thus far the I.I.N. has not shown any interest in using in-country management education courses because the contents of these programs are standard and not especially prepared for the needs of the Navy.

Of course it should be noted that not necessarily all the needs of the organization to managers are supposed to be fulfilled through management education. Some of the other methods of management development such as; on-the-job development, job rotation, and special assignments, have been used before and still are being used by the I. I. N. also and there is no reason to believe that managers developed by these other methods would be less effective or of lower value to the organization, compared with the educated managers. But obviously some of the managerial positions in any organization call for incumbents having a deeper knowledge in areas such as quantitative methods of problem-solving, financial and economic problems, human behavior, and so forth. The management education method, of course, is supposed to develop the officer's ability in these areas and to prepare him for effective job performance in such positions.

However, the high rate of expansion, running a little ahead of the rate of supply of officer personnel into the Navy, puts a ceiling on the number of officers which can presently be spared for long-term educational courses such as management education. Furthermore, one important implication of this growth, as the Iranian Navy has already started to experience, is "decentralization" which requires managers capable of carrying greater responsibilities and working more autonomously.

It must be noted at this point that the I. I. N. too, like the majority of other navies and military organizations, has its own restrictions in

terms of rank structure, promotion policies, longevity and so forth, for recruiting qualified managers for most positions. So it is necessary for this organization to choose, virtually all management positions (lower, middle and top), from available officers.

Therefore, whether the I. I. N. would find other means of coping with this situation or not, it seems obvious at this point that adoption of an appropriate selection procedure, based on well-studied and analyzed criteria, would enable this organization to choose the relatively few officers who undergo managerial education in a way that ensures maximum utilization of scarce human resources. Such a procedure should provide for the identification and education of those naval officers who not only have the potential of becoming good managers, but who are in the process of, or apt to develop, additional qualities necessary for handling successfully greater responsibilities than what is normally expected from managers of comparable educational background and experience.

The purpose of this study, then, is to develop a set of criteria that the I. I. N. may use as the basis of selection of its officers for management education, and also, to suggest a selection model that allows for channeling the high potential Iranian naval officers into postgraduate programs in management education in a way which is least expensive to the navy and most appropriate for the officer's professional development.

PART II

THE CURRENT SELECTION PROCESS: AN ANALYSIS

The purpose of this part of the study is twofold. First, it is aimed to indicate whether or not the current procedure of selection is compatible with the present and future needs of the organization in terms of management manpower. The second purpose, then, is to come up with a set of criteria to use for increasing the efficiency of the selection.

The first purpose involves an analysis consisting of two overlapping discussions. One discussion deals with the current selection procedure and the extent to which it has worked in the past years. The other discussion aims to examine why the current process of selection is not appropriate for the present situation of the I. I. N., and the consequences that its continuation may have for this organization.

The current selection process: how has it worked in the past?

Currently, the selection of Iranian naval officers for postgraduate education in management is essentially based on the following four factors:

1. Availability of managerial type of billets in the officer's unit.
2. The judgement of the officer's commanding officers on his performance and on his managerial aptitude.
3. The officer's rank. Usually only lieutenants (senior and junior grade) are considered.
4. The officer's educational background.

The sequence in which the above factors are mentioned practically forms the core of the selection procedure in current use. The following example, though extremely simplified, may help to clarify more how the present system actually works.

The commanding officer of a naval establishment or a department head foresees the future need of one or more educated managers for the billets opening in his unit or department because of expansion of the functions, transfer, or promotion of a subordinate manager. The need is reflected through the formal chain of command to the Training Department, and usually the requesting unit itself, or the division or department which the unit is part of, will supply the officer or officers having the appropriate rank and educational background needed for post-graduate management education. These candidates are selected on the basis of their past performance and their managerial aptitude as judged by their commanding officers. The rest of the process involves an English Comprehension Level test, physical examination, academic application, etc.

This simple example may give the idea of a somewhat loose selection process at first glance. But as further clarification will indicate the present system, though not an ideal one, has not been as loose and inefficient as it may seem in the period in which the I. I. N. was a relatively small organization not engaged in the unavoidable restraints imposed by the high rate of expansion.

Perhaps a brief description of how, and to what extent, has the system worked in the past would be useful in clarifying its shortcomings in the present situation of the organization.

The first factor, i. e., the availability of managerial billets in the requesting unit, may be explained in part by the fact that the old small organization could tolerate more easily the lack of trained managers in some positions for the interval of time which was needed for selecting and educating an officer in management. Besides, given that rapid expansion and change were not the norm, it could have been much easier for the commanding officer to foresee with enough precision his unit's needs for educated managers in terms of quantity and subspecialty.

The second factor also might be justified in part by the small size of the old organization which made it possible for the higher levels of the organization's hierarchy to observe and evaluate the subordinate officers, and to express their opinion on the candidate's competence and adequacy, during the process of selection.

Perhaps the first two factors combined, i. e., the selection and education of those officers who had been in managerial type of billets and who had shown some aptitude for real management responsibility, has had also the advantage of demonstrating the usefulness of education in management, hence, serving as a start point of this branch of management development effort and encouraging the organization to emphasize more this kind of manpower investment.

As far as the third factor (i. e., the rank of the selectees) is concerned,

it seems logically convincing that the policy used thus far by the I. I. N. has been an appropriate one. In fact according to data obtained from the Administrative Sciences Curricular Office of the U. S. Naval Postgraduate School, all the Iranian naval officers selected thus far for management have started the education either as a senior Lieutenant Junior Grade or as a Lieutenant.³ This practice of selecting mature officers has at least the following two advantages;

- (1) It ensures that the selectee has a certain degree of maturity and experience, necessary for getting a better understanding of management theories and concepts taught in the Management material of the curricula.
- (2) The practical experience and the rank of the graduates is consistent with the billet requirements of middle managers throughout the organization.

This range of the ranks of the selected officers is in the upper limit, consistent with the rank of U.S. naval officers (compared in terms of years in service) selected for postgraduate education in management.⁴

Of course there are other military organizations which use completely different policies for the rank and years in service of the officers selected for this kind of education. The Indonesian Navy,

⁴See OPNAVNOTE 1520, Ser 991E5/640932 of 23 April 1976, Department of the Navy.

³These ranks are respectively equivalent to USN's LT and LCDR, as far as the years in service are concerned.

for example, emphasizes more the experience of the candidates and selects them among the ranks of lieutenant commander and captain, giving priority to seniority all other qualifications being equal.⁵

However the I. I. N's policy regarding the rank of the selectees seems to be an appropriate one considering the background requirements of the education and the structure of the organization.

Another problem in the selection process in the past few years has been the inadequacy of the educational background of some selectees for successful accomplishment of the education course. The academic prerequisite of the U. S. Naval Postgraduate School for International students include a baccalaureate degree, completion of at least two semesters of college mathematics at or above the level of college algebra or trigonometry,⁶ and a score of eighty percent or above in the standard English Comprehension Level Test. However, data obtained from the Administrative Sciences Curricula of the U. S. Naval Postgraduate School shows that 20% of the I. I. N. students who have undergone the Management Curricula of this school, have not succeeded in completion of the course, though they met all the above mentioned prerequisites. The analysis of these data showed that at lower than

⁵Information obtained from Major Prijadi Nusantara, Indonesian Navy's student of the Administrative Sciences Curricula in the Naval Postgraduate School, 1976-77.

⁶See the Catalogue of the Naval Postgraduate School - 1976.

.05 level of significance the failure or marginal academic achievement of the students was not independent of the category of colleges from which they had taken their baccalaureate degrees (See Table 1 below).⁷ Those coming from local Iranian universities and military academies

		B.S. Degree Source	
		European universities and naval academies	In-country universities
Quality Point Rating	B+ and above	<div> <div>EXPECTED%</div> <div>35% 50%</div> <div>Actual %</div> </div>	<div> <div>E</div> <div>15% 0%</div> </div>
	B	<div> <div>E</div> <div>21% 20%</div> </div>	<div> <div>E</div> <div>9% 10%</div> </div>
	B- and below	<div> <div>E</div> <div>14% 0%</div> <div>A</div> </div>	<div> <div>E</div> <div>6% 20%</div> <div>A</div> </div>

were less successful, compared with the only other category -- those having their baccalaureate degrees from European colleges and naval academies. Besides, as no correlation was found between the English Comprehension Level score of these students and their academic performance, the lower academic achievement of the former group could not be attributed to language difficulty or to the lack of experience in

⁷The analysis consists of a chi-square test for independence, using the actual figures from which the percentages shown in Table 1 have been derived.

studyingⁱⁿ foreign languages.

Why the present selection procedure needs to be changed?

Whatever the outcome of the present selection procedure has been thus far for the I.I.N., and whether or not it should have been better, given that management education is still a new trend in this organization, clearly there are a number of shortcomings inherent in the present system of selection which must be corrected if the future needs of trained and qualified managers are to be met.

Starting from the very beginning of the process, a number of the major shortcomings of the first of the four current factors are apparent. One is ^{that} the casual and non-systematic foreseeing of the future management needs by separate units of the organization is not likely to cover the needs of the whole organization. For this purpose a comprehensive forecast of managerial needs would be needed that takes into consideration the vacant positions to be expected as a result of pensioning off, turnover, transfer, promotion and expansion, the step that has been considered by many the starting point of management development. [2]

The other main disadvantage of the first factor is that it limits to a high degree the number of individuals who should have the opportunity of being considered for managerial education. So it would be very likely that a good fraction of the officers having good managerial talent and aptitude remain invisible and unknown to the organization. Such individuals perhaps would never find the opportunity for the self-development that they may deserve, and the organization too, would

lose the greater contribution that they might have done to it had they been identified and utilized properly.

Continuation of the present procedure may have other disadvantages, too. For example, through repetition, it may become a tradition or a belief that prospective managers needed in any department or unit should necessarily be selected among the available officers in the same unit or department. Such departmental inbreeding will increase the probability that a number of officers become selected for managerial education just in compensation of their good service in a department or the like. Such kind of rewards of course has never been part of the Navy's policy and certainly can be harmful to both, the organization, and the individual himself when selected improperly. The improperly selected officer will pay, if he fails in the completion of the postgraduate education in an extreme case, by losing the promotional opportunities that would otherwise be open to him -- or even if he passes the educational course but realizes later in his career that he, as a manager, is not capable of performing effectively what the organization expects from him.

Still another disadvantage of the selection within the department is that it limits the experience of the selectee in various functions of the organization which is necessary for his later performance as a coordinator, and that has been considered by Katz [3] as an excellent way to develop the conceptual skill of the manager.

Finally, this in-department selection of the candidates may cause

undesired morale consequences for those officers who really have the desire and a greater potential of becoming competent managers, and those who at least think they might have deserved the opportunity but that their career pattern does not provide them the chance. In other words, the present system falls short to indicate that the selection is on the basis of merit.

Of course comparing the procedures used by different organizations, even if similar in terms of function, would not be very meaningful unless all relevant factors such as; overall organizational policies, particular restraints, cultural and climatical differences, and so forth, have been taken into consideration. Nonetheless it is worthy of mention at this point that the U. S. Navy, for example, has quite eliminated most of the problems discussed in the preceding paragraphs, through asking all its officers who desire Navy funded postgraduate education to indicate or update their curricula preference annually. Also the academic prerequisites and officer eligibility for different areas of postgraduate education are annually communicated to all units and commands.⁸ In this way, at least every eligible officer is sure that he has not remained unknown and ignored by the organization. Besides, as Reeves [4] argues, when the individual himself announces his candidacy for management responsibility it indicates he has made some basic thinking about his own commitment to the organization and to management.

⁸See footnote 4 on page 16 .

The second factor of selection used in the current process, as mentioned earlier, does not seem to be wrong in essence considering that in any kind of evaluation and appraisal of people, human judgement is eventually involved, and that in any military organization the traditional appraisal of a subordinate by his superior is still the trend. Furthermore, it has been argued that in management jobs evaluation of the person by other individuals (the boss for example) often has greater over-all relevance for the goals of the organization than certain objective measures that may cover only minor or peripheral aspects of the job [5,263]. Obviously it is possible, as will be seen in the later parts of the study, to reduce the subjectivity of human judgement through adoption of guidelines for evaluators.

However, this step of the selection process presently involves two main disadvantages. The first disadvantage is that the increasingly big size of the organization no longer allows the officer to be as closely contacted and observed by his commanding officers and by the higher levels of management as in the smaller organization of before. As discussed previously this contact had, at least in the pre-expansion period, the advantage of enabling the higher authorities to observe and evaluate the candidates.

The other disadvantage is that the criteria used by different commanding officers in evaluating the managerial aptitude of the subordinate officers is not intra-organizationally valid and uniform, and it may vary from unit to unit and even within the same unit from department to department.

In this step too, a variety of methods may be used to eliminate or alleviate the aforementioned disadvantages. The U. S. Navy's policy of selecting among the candidates by a Postgraduate Education Selection Board is an example.

It was shown in the preceding section that the third factor of the current selection procedure, i. e., the range of the rank of the candidates, has been in use by the Iranian Navy. Just for the same reasons discussed previously, the use of the same range of ranks seems appropriate for the present situation and the foreseeable future of the organization.

As it was briefly discussed in the preceding section, perhaps the match between the academic prerequisites of the Management Curricula and the educational background of the candidates deserves more attention. However some points seem to need more clarification in this regard. The previous discussion of this topic is not intended to mean that the desired selection procedure should provide for selection of those officers who are likely to achieve outstanding or very high academic results in management education. In fact, in spite of the controversiality of the subject of relationship between the academic performance and managerial ability and effectiveness, it would be safer (and more practical) to argue the necessity of selecting those officers who will certainly pass the educational course -- not necessarily those who would achieve the highest grade point averages. There are a number of studies in the literature, such as those performed by Weinstein & Srinivasan [6] and Harrell & Harrell [7], reporting a direct relationship between

academic performance in postgraduate education in management (as measured by grade point average) and managerial success as measured by management compensation some years after the graduation. Besides, in the latter study the lower compensation of the managers having low grade point average has been also associated with lower Boss Peer Ratings, lower Strong Vocational Interest Blank scores, and greater number of employers, as compared with high point average managers.

Livingston [8], on the other hand, argues that academic performance in managerial education is by no means an indicator of the individual's managerial ability and effectiveness. He suspects, rather, that being an outstanding individual performer (e.g., achieving outstanding grades) may be in fact indication of the individual's lack of motivation and temperament to get the results by others, or in other words, the lack of motivation to manage.

However, as mentioned before, the main concern with the educational background of the candidates, it seems, should be to minimize the chances of their failure, given the value that the eighteen months time of an officer has to the organization, especially in the present situation.⁹

⁹The duration of the management curricula in the U. S. Naval Postgraduate School is eighteen months.

Increasing the Efficiency of Selection

On the basis of what has been discussed up to this point, the following factors seem to have an important role in increasing the efficiency of the selection;

- Making the selection organization-wide

This is a necessary factor because it gives an equal opportunity to every eligible and willing officer to apply for management education and it also increases the organization's possibility of making a better choice among the available officers. It was seen before that this factor can also decrease or even eliminate the resentments of those groups of officers who under the present system may believe they are deprived from a good career development opportunity, because of a less lucky career pattern -- not being in the right place at the right time.

- Educational background

As discussed before, the educational background of the candidates does not necessarily need to be an outstanding one. But it must show at least a steadily successful scholar, able to succeed in advanced educational program of management. Strength in mathematics (above average) will certainly increase the individual's chances of acquiring the analytical ability and in learning the quantitative methods of problem-solving which are necessary for today's manager in a

technical profession. These managerial skills are probably obtainable only through formal education. Furthermore, now that managerial manpower is more critical to the organization, precious time could be saved if the educational background of selectees allows for validating some courses in the Undergraduate Program of the Management Curricula.

. Rank

It was seen before that the current policy of selecting the officers among the ranks of Lieutenant and Lieutenant Junior Grade is most beneficial to the organization.

. Past performance

As emphasized in any organization and especially in the military in differentiating individuals for a privilege, the record of past performance takes an important role. Of course the current selection procedure takes into account the past performance, but only as a determinative standard and not as a differentiating factor among otherwise equally suitable candidates. This is because of the general structure of the present selection system that does not allow for centralizing and harmonizing the measurement of factors and for comparing candidates against one another. The scale is normative -- not internal.

. Personal characteristics

Thus far the discussion has been concerned mostly with the

more evident aspects of selection. Nothing has yet been said about the personality characteristics and traits, motivation, job behavior and values of the candidates. The reason being that the present system of selection does not consider any of these factors explicitly. However the huge amount of research and study on these topics in the literature of management and management development is perhaps an indication of the important role of these factors in managerial performance and effectiveness.

Description and discussion of these factors, some of which may help the I. I. N. in identification of management potential, is presented in the next part of the study.

PART III

PERSONAL CHARACTERISTICS TO CONSIDER FOR IDENTIFICATION OF MANAGEMENT POTENTIAL

The present part of the study is in essence a tentative one, aimed at developing a set of criteria for identification of these officers having the personal characteristics for effective managerial performance. These criteria, expressed in behavioral terms, might then be used with those factors discussed above, to formulate the main steps of a selection model which is presented in Part IV.

First, a review of the more important features of effective managerial performance is in order. Special emphasis is given to the particular situation of the I. I. N. at this time.

Characteristics of effective managers

In discussing the characteristics of effective managers it is necessary to define what is meant by the words "management" and "manager." One definition used frequently by management authorities is that "management is getting things done through other people." This statement of the management concept has been referred to by Apply [9] as the core concept of management, traceable at least to the late nineteenth century. This writer then argues on the basis of this statement that;

"Management, therefore, becomes any activity which involves leading any group of people toward the attainment of common objectives in any walk of life."

Early in the twentieth century the father of Scientific Management, Henri Fayol, described five basic functions of management as; planning, organizing, coordinating, commanding and controlling [10, 1]. These basic functions are still commonly found with little change in management textbooks and papers. Drucker [1] for example, defines the work of the manager as one of planning, organizing, integrating and measuring. A more comprehensive definition of manager's work has been given by Strong [11] which includes some necessary factors for effective management. According to Strong, besides the five basic functions defined by Fayol, the manager also motivates his subordinates and he adds foresight, order, purpose and effectiveness to their contributions.

It is important at this point, however, to consider the difference between three terminologies often used interchangeably to refer to the same individual -- manager, leader, and administrator. Fiedler and Chemers [17] and Cribbins [13] consider leadership as one element of the overall managerial job, and hence, as the former authors point out, managers may exist who have leadership functions (those who manage people), and there are managers who manage things. Odiorne [14], Dinsmore [15], and others distinguish between managers and administrators. According to Dinsmore the job of the manager is to stay on top of change. Sometimes his job is to adapt to change and sometimes to initiate it. The administrator's job, these authors argue, is to carry out the ideas of others, and does not involve much imagination and initiative.

Many writers on the subject of management have tried, on the basis of managerial functions, to describe or theorize effective managerial performance, and much research has been undertaken in the last three decades to test these theories and to find evidence for formulating new theories. Approaches adopted by different writers and researchers in describing managerial success and effectiveness have been varied. Some have focused on a manager's traits, some on managerial skills, others on managerial behavior and still others on manager's set of values and motivation, managerial style, etc. A brief summary of some findings in the literature of management and managerial effectiveness, according to each of these different approaches follows.

Traits:

One major attempt in describing and predicting managerial effectiveness has been to isolate a unitary trait or a set of traits that were basic to all effective managers [10, 194]. A list of desirable managerial traits gleaned from the literature of management by Campbell and others [16] includes the following:

Able to sustain defeat	Extroverted
Alert	Fearful of failure
Ambitious-Achievement-oriented	Group-oriented
Assertive	Honest
Capable of good judgement	Intelligent
Competitive	Mentally healthy

Concrete	Optimistic and confident
Creative	Pragmatic
Decisive	Predictable
Dedicated	Reality-oriented
Dynamic	Self-controlled but defensive
Emotionally stable	Tolerant for frustration
Energetic	

These traits, as Campbell et al point out, seem to include just about every human virtue, and their use can be only for crude descriptive purposes rather than for differential prediction [16, 10]. In fact, difficulties in objective interpretation of the words defining traits, and problems of objectively and quantitatively measuring them seem to have discarded the use of traits in predicting managerial effectiveness [17].

Skills:

Early in the Nineteen Fifties, Katz [3] suggested what he called a more useful approach to the selection and development of administrators. His approach was based on what effective administrators do rather than on what they are (i. e., innate traits and characteristics). Katz defined the skills of effective administrators in three dimensions -- technical skill, human skill, and conceptual skill. Very briefly stating, the three skills involve the following subskills or abilities;

- Technical skill: Specialized knowledge, analytical ability within the specialized knowledge, facility in the use of tools and techniques of the specific discipline.
- Human skill: The ability to work with people, perception of superiors, equals and subordinates, the manager's behavior subsequent to his perception of people.
- Conceptual skill: The ability to see the organization as a whole, recognizing how the various functions of the organization depend on one another, how change in any one part affects all the others.

Following Katz's classification, a number of other writers suggested further classifications of managerial and leadership skills, believed necessary for manager's effectiveness. A comprehensive search performed by Stogdill [18] summarizes these skills as the following;

Social and interpersonal skills

Technical skills

Administrative skills

Intellectual skills

Leadership effectiveness and achievement

Social nearness, friendliness

Group task supportiveness

Task motivation and application.

As is readily apparent, these categories, except for the last one, do not add much to Katz's classification and they can be condensed into the three mentioned above.

The reason why Katz preferred to describe effective management in terms of the previously mentioned three skills was, as he reemphasized again almost twenty years later [3, 101], that it would permit to focus attention on "demonstrable skills" rather than on innate personality characteristics. However, he did not specifically define how to measure objectively a manager's or a managerial candidate's "human skill" for example. This skill, according to Katz, involves a series of traits such as self-awareness, sensitivity to the needs and values of others, good judgement, and group-orientation.

Job Behavior:

A number of problems with use of traits in defining and assessing managerial effectiveness have made resorting to job behaviors more plausible to some researchers. In fact traits are said to be not directly visible (and measurable), and the words by which the traits are defined suffer from ambiguity and lack of consensus in interpretation. Furthermore, as Bennette [17] argues, even if the traits were possible to assess and measure, there would remain the problem of seeing whether the individual has the will and motivation to put his ability to work. Skills, on the other hand, are so broad that in many cases it becomes impossible to attribute particular features of a manager's performance to a

specific skill. Job behavior, however, has been considered by some writers a better way of defining effective managerial performance, as compared to traits [16, 8]. It has been said that it is the behavior of the person, rather than his traits which produce results [19].

Here again, lists of job behaviors, characteristic of effective management practice, are varying and categorized in different dimensions. The following is a list of job behaviors collected by Campbell and others [16] from the literature, most of which is said to be exhibited by successful managers:

- Managing work instead of people
- Planning and organizing effectively
- Setting goals realistically
- Deriving decisions by group consensus but accepting
responsibility for them
- Delegating frequently and effectively
- Relying on others for help in solving problems
- Communicating effectively
- Being a stimulus to others
- Coordinating effectively
- Cooperating with others
- Showing consistent and dependable behavior
- Winning gracefully
- Expressing hostility tactfully.

It has been argued, however, that there is not enough knowledge about human behavior in management situations to permit development of behavioral principles applicable in any management job [15, 31]. Furthermore, as Dunnette [20] argues, in many jobs such as managing, the actual means of achieving job objectives remain unspecified, and that the individual placed in such jobs may actually change the job to fit his own strengths, weaknesses and job behavior.

Style:

It seems necessary, before discussing "the effective managerial style," to clarify what is meant by this word. In a discussion of managerial leadership styles, Fiedler [21] defines it as the consistency of goals or needs, which motivate the individual, over different situations. It has been also defined by Fiedler and Chemers [12] as a relatively enduring set of behaviors which is characteristic of individual regardless of the situation. It is also worth noting that these authors do not really distinguish between leadership traits and leadership style. The difference, as they put it [12, 40], is that the former focuses on what the individual is, and the latter on what he does.

However, two main styles of managerial leadership, discussed most frequently in the literature, are the participative and the directive styles. Each of these two styles is based upon a series of assumptions about human nature and human motivation. The underlying assumptions of the directive or authoritarian style, defined as Theory X by McGregor

[22], have their root in Taylor's theory of human motivation.¹⁰ The participative style, on the other hand, is based on a series of quite different assumptions about human needs and behavior, called Theory Y by McGregor.¹¹

Many management writers such as Likert [23] and McGregor [22] have considered the participative style of management more effective than the directive style. Stogdill [18] in a review of the literature concludes that group performance (as measured by productivity) does not vary consistently with directive and participative styles of management. Wofford [24] in a study aimed to explore, by factor analysis, the basic dimensions of managerial behavior, found that the factor that loaded heavily on the behaviors involving participation and the team-work approach, was also defined by the behaviors involving the emphasis of planning, organizing, and controlling in a systematic and thorough manner. He asserted that perhaps the effectiveness attributed to participative leadership in previous studies should be interpreted in the light of the associated tendency of these leaders in their behavior to be orderly and structured. Referring to studies which report greater

¹⁰ According to this theory man by nature is shiftless and lazy, and primarily motivated by money. This theory was brought into doubt by Hawthorne Studies performed by Roethlisberger and Mayo.

¹¹ Theory Y relies heavily on human beings self-control and self-direction in work.

group effectiveness with participative management style, Fiedler and Chemers [12] argue that perhaps it is in effective and productive groups that the leader tends to ask for member participation in decision-making rather than effectiveness being caused by the participative style.

In a study performed recently in a simulated leadership situation, Barrow [25] found that subordinate performance was a strong causal force in the determination of the behaviors a leader utilizes. In this study low performing subordinates caused a leader to behave much more punitively, more autocratically, less considerately, and to push for more production. Whereas high subordinate performance resulted in the leader being more considerate toward the workers and to be less task-emphasis oriented.

Fiedler [26] proposes, however, a contingency approach to managerial leadership. He asserts that appropriate management style depends on the subordinates, the set of conditions in which the manager finds himself, and the particular situation. A very close theory to this has been proposed by Morse and Lorsch [27] who suggest that either the participative or the directive style of management can be effective depending on the task and people involved. Another contingent approach to effective management, based on the relationship-oriented -- task-oriented classification of management styles, has been proposed by Reddin [28] who combines relationship-orientation and task-orientation in a way similar to Blake and Mouton's managerial grid,¹² but

¹²See Blake, R. and Mouton J., The Managerial Grid, Houston: Gulf, 1964.

contrary to them, he does not point to any optimum style. Reddin comes up with four styles of management (which he calls - Integrated, Dedicated, Related and Separated) each of which he considers appropriate for managerial jobs of a specific nature.¹³

As a final point in this regard, it is worth mentioning that management and managerial style have been considered as a highly individualized art [8, 84]. Empirical research has shown that when managers behave in ways which do not fit their personality, they are apt to communicate to their subordinates something quite different from what they intend, and that subordinates would view such behavior with suspicion and distrust [23, 93].

Motivation:

"What makes or motivates a good manager?

The question is so enormous in scope that anyone trying to answer it has difficulty knowing where to begin. "[29]

In spite of all the truth which is in the above mentioned statement of McClelland and Burnham, as a first answer, an intuitively appealing one has been suggested by Livingston [8]. This author considers "the need to manage," or the willingness to take responsibility for the productivity of others, a crucial characteristic of effective managers. Though

¹³ For any further description or details of these four styles of management the reader is addressed to the original publication.

in the literature of human needs and motivation, conventionally, no need has been discussed specifically under the name of "need to manage," considering that the most important feature of managing is to get the job done by others, then this need must be related to, or must be part of, the need for power and for influencing others. In fact, leadership on the job has been viewed by many writers as the ability to influence the thinking, attitudes, and activities of others so that they willingly direct their behavior toward organizational objectives [13]. However, Livingston [8] distinguishes between manager's need to manage and his need for power, and considers these two, along with the capacity for empathy, the major characteristics of men who learn to manage effectively.

Speaking in terms of the three most spoken sets of motives, i. e., the need for achievement, the need for power, and the need for affiliation, a number of management writers such as Vroom [30] and Likert [23] have considered the presence of the need for achievement necessary for choosing managerial jobs and for success in them. A number of more recent studies performed by England and Weber [31], McClelland and Burnham [29], and Livingston [8] have shown, on the other hand, the need for power as the more important set of needs for effective management. Though many writers associate the need for power with the authoritarian or non-participative managerial style, McClelland and Burnham believe that having a high need for power and influence does not necessarily mean that the manager should be authoritarian

in action [29, 105]. These writers differentiate between the personal power motivation and the institutional power motivation, and they argue that if the latter is checked by the manager's emotional maturity, it will not lead to aggressiveness and egoistic expansiveness. Besides, it has been argued that the authoritarian who is in tune with the organization's general style of leadership does not create any great problems for subordinates, and that he can be the source of much conflict when his existence is atypical [15, 24]. Finally, in discussing the comparison between the managers, "high in need for achievement" and those "high in need for power," McClelland and Burnham [29] and Livingston [8] argue that a high need for achievement may lead managers to act in very special ways not necessarily good for management and organization. High need for affiliation has been considered commonly a weakness in managing.

Summary

Perhaps the only definite conclusion that can be derived from the above discussion, from the vast and profound literature of managerial effectiveness, is that effective managers are those who have the characteristics to be effective. Schein [32] considers, in fact, adequate managerial performance at least as much a matter of beliefs, attitudes and values, as a matter of knowledge and specific skills, but that the acquisition of such knowledge and skills is itself in part a function of beliefs, attitudes and values. Of course it would be possible, on the

basis of managerial functions and responsibilities, to arrive at a set of factors necessary for performance in managerial jobs. But "effective job performance," as convincingly argued by the proponents of the contingency approach to managerial leadership, involves a set of characteristics which at least vary from situation to situation, and with respect to people involved.

Approaching the problem from this point of view, it should be possible to arrive at some basic characteristics, necessary (not necessarily sufficient) for effective management in the particular situation of the organization described in Part I of this study. It was shown there that the present situation is at best a stressful one for the I. I. N. The tremendous rate of expansion, along with high technical sophistication and change, make many implications for the military officer in general, and for the military officer in managerial positions in particular.

To summarize, on the basis of the particular situation of the organization and borrowing eclectically from the literature, the following characteristics seem to play an important role in effectiveness of individuals going to assume the great responsibilities of managerial positions;¹⁴

Administrative ability

This factor is the most basic and includes the common functions of administration such as planning, organizing, directing, controlling,

¹⁴A number of more obvious characteristics have been omitted because of brevity and because they are supposed to be displayed by every military officer.

and evaluating.

. Adaptability

Given the ongoing process of change, which affects the job requirements and work activities of managers, the presence of this factor becomes a must for the manager [34, 9]. The individual must have, not only the sensitivity to understand the change, but also the ability to adapt his thought and his behavior to the changing requirements of his job. He must be able to demonstrate his capability to act in a manner that takes fully into account the characteristics of the specific situation and of the people involved. Ineffective managers are seen as those who persist in stereotyped thoughts and activities while the world of work changes around them [19]. The effective manager usually has a high tolerance for ambiguity.

. Control of emotions

The lack of this characteristic, which has been considered a reflection of maturity [9, 66], certainly affects the individual's capability of good judgement. Its presence is necessary in people-handling which is a major feature of managerial jobs. It certainly increases the manager's objectivity in thought and in decision-making, and has been counted for by Levinson [33], essential in managerial problem-solving.

. Imagination

The great rate of organizational change calls for manager's imagination as well as adaptability. While adaptability is necessary for keeping pace with change, imagination is necessary for managing it.

When the old procedures stop working in the changing work environment individuals are needed who can handle positions which are defined to a great extent by their own imagination [15, 39].

Integration

This characteristic refers to what Katz [3] calls the conceptual skill, or the ability to see the organization as a whole. While it could be tolerated that the officer who is being supervised restrictively by higher levels of authority does not consider integration in every act or decision (because his action is likely to be corrected), the manager who acts more independently must be able to recognize how the various functions of the organization depend on one another and how changes in one affect all the others. This factor involves also the manager's data gathering and communication abilities.

Self-sacrifice

Though the word self-sacrifice, as used in military context, usually means complete self-denial for the benefit of one's country, unit or group, it is used here to define a somewhat less impressive and yet quite valuable behavior. It is used to refer not to the officer's readiness to sacrifice his life in a critical combat situation (which is expected from every military officer), but rather to his willingness to sacrifice some of his own self-interest for the benefit of the organization. This characteristic is quite necessary for the military manager in a period of organizational expansion with relatively better advancement opportunities and much freedom of action.

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Sensitivity

The manager's sensitivity is essential at least in two dimensions. He must be sensitive to the ongoing change which surrounds his job and his work environment if he is going to adapt himself and his role accordingly. In addition he must be sensitive to values, needs and expectations of others. This sensitivity has been considered by Katz [3], Likert [23] and many others as an important feature of supervision. A good combination of this characteristic with individual's adaptability should also result in the only managerial style which can be counted for as effective, a contingent one, free from stereotype action and stereotype approach.

Tolerance for stress

The importance of this characteristic is quite obvious given the present and the expected future situation of the organization. Obviously there will be a limit on the physical expansion of the organization. But the effect of the growth, and the quite new and continual high technical sophistication, can be expected to take more time to let the organization obtain equilibrium. Managers capable of tolerating the stress are needed to cope with these, and with the personnel problems created by the rapid expansion.

Need to manage

This characteristic is perhaps the broadest and the most important one. It is meant to include such things as the individual's

need for organizational power, his interest and ability in administration and in working in an orderly manner, not having a great concern for being liked. Given the particular situation of the organization, this factor must include also the individual's willingness to work hard and for long hours when needed. With respect for Livingston's terminology "the need to manage," this characteristic should be called perhaps "the need to manage in stressful situations.", Such a manager will usually be known as organization-minded.

PART IV

A SELECTION MODEL

As a result of what has been discussed in the preceding parts of the study (Parts I and II) two sets of factors have been developed as the main determinants of the effectiveness of managers and of management education program in the I.I.N.

In the present part of the study it will be seen how these factors might be assessed and/or taken into consideration during the selection process, in order to meet the objective of increasing the overall effectiveness of the organization's management education efforts. It should be remembered, however, that this study is primarily concerned with the selection aspect of management education, and that management education is, in turn, only one method of management development. So, at this point some basic premises regarding management development will be made. It will be assumed that some of the more basic steps of management education have been taken by the organization. It will be assumed that the organization's future needs for managers are being forecast, in terms of quantity and subspecialty, on a regular basis. It will be assumed that management education is a cost-effective method of management development, and that an appropriate source of management education is being used by the organization.

One other problem, deserving clarification before presenting the intended selection model, is the assessment of the personal characteristics

in candidates. In the following section the I.I.N's capabilities regarding the use of some commonly used assessment methods will be examined.

A. A Critique of Current Methods of Candidate Assessment

In the proposed selection model (Section B of the present part) a method for assessment of the personal characteristics of candidates will be presented. However, before presenting the intended method, the possibility of using two alternative procedures which are of common use for this purpose will be briefly examined. These two alternatives are; use of psychological testing, and use of assessment centers. The purpose of the following discussion is to see whether any of these commonly used methods can be adopted by the organization for accomplishing the assessment.

1. Use of Psychological Tests

The use of psychological testing for prediction of managerial ability is, at least in most western countries, commonplace. In spite of its popularity and perhaps its usefulness for this purpose, psychological testing will not be recommended at the present time for selection of managers in the I.I.N. because of the following reasons.

First, the only psychological aptitude tests presently available in Iran for managerial jobs are those prepared by the State Organization for Administration and Employment Affairs¹⁵ on the basis of certain American tests. These tests, as far as this writer is informed, have not yet shown a high validity in the Iranian culture. They are still in the experimental and development stages.

¹⁵The organization has, more or less, the same functions as the Civil Service Commission of the United States.

Second, even if there were available any managerial aptitude tests of high validity and reliability their use would not have satisfied the needs of the Iranian Navy. The reason for that is that the organization is in a situation different from other government or private organizations. There are particular behavioral demands on managers in the I.I.N. that are difficult or perhaps impossible to assess by means of the common psychological tests. Besides, even in the United States, and for ordinary managerial jobs, some researchers suspect the predictive validity of the leadership ability tests and personality inventories which are used in selection of managers [35, 319].

It should be noted that there is one category of psychological tests generally known to be useful in assessment of managerial ability. These are the tests used for measuring managerial motivation. Such tests, though mostly of projective nature, have proven in many studies to provide valid information on managerial motivation [36, 232], [35]. Examples of these tests are; Miner Sentence Completion Scale, Kuder Preference Record, Strong-Campbell Vocational Interest Blank, McClelland's Thematic Apperception Test, etc.

However, use of such tests alone, regardless of the degree of their cross-cultural validity, will not solve the whole problem of assessing the desired behavioral job demands in the candidates. Thus, there does not seem to exist any strong reason to advocate their use. Moreover, the assessment procedure which will be described below can provide for assessing the motivation factor.

2. Assessment Centers

Assessment centers are considered by some researchers the most valid tool of determining management potential [37, 9], [38, 352].

A unique contribution of assessment centers is the inclusion of situational tests in the assessment battery, the rationale behind this being that of simulating the type of work to which the individual will be exposed in future managerial positions. This allows for observing the individual's performance under somewhat realistic conditions.

Unfortunately, up to this time there are no assessment centers operating in Iran and the same difficulties described above regarding the use of psychological testing would be present in using these mechanisms. (In fact, at the present time a major part of the process in assessment centers involves using a battery of psychological tests.)

B. The Model

The following selection model is not intended to represent a definite and detailed selection procedure. Rather, the purpose is to describe, on the basis of factors derived in the previous parts of the study, the main steps of a selection model and to indicate the logical sequence of the events within each step during the process of selection. Moreover, in discussing each step, a suitable method for achieving the objective of the particular step will be presented.

1. Making the Selection

The objective of this section is to outline a process for making the selection organization-wide.

All lieutenants, senior and junior grade, who have not undergone any Advanced Training¹⁶ can apply for postgraduate management education by indicating on their Advanced Training Preference Sheet¹⁷ a desire for this kind of education. Of course the Preference Sheets must be returned, as usual, to the Training Department via commanding officers.

At this stage the records of officers who indicate Management Education in a specific subspecialty as their first preference must be checked by the Training Department and other departments of the Bureau of Personnel for the following characteristics;

- (1) Prior Advanced Training - Insuring that the applicant has not been through any identical advanced training course.
- (2) Designator - Ensuring the appropriateness of the requested subspecialty for the applicant's designator.

¹⁶In the Iranian Navy every officer should undergo advanced operational or technical training within the area of his designator before being promoted to the rank of Commander.

¹⁷This form is filled or updated annually by all eligible officers who have not undergone any Advanced Training. The officers indicate, by priority, their preference for different Advanced Training programs within the area of their designator.

- (3) Sea duty - Ensuring that the applicant will have accomplished the minimum years of sea duty prior to the scheduled time for the educational experience.
- (4) Educational background - Ensuring that the applicant meets the educational prerequisites of the institution of higher learning under consideration.
- (5) Past performance - The applicant's score(s) in the last performance appraisal(s) must be within the categories acceptable for Advanced Training.
- (6) Experience - Ensuring that officers having practical experience within the area or associated areas of the desired subspecialty are considered.

The applicants who meet the requirements of the above six factors will be considered eligible for the next step of the selection process and their names will be communicated to respective units as candidates for step two.

For simplicity, such officers will be referred to as "second-step candidates" hereafter.

2. Assessment of Personal Characteristics

Given the inadequacy of available psychological tests and the non-availability of other advanced assessing tools (described in Section A above) the objective of assessing the desired personal characteristics in candidates can be achieved through some more practical methods. Namely, a method of "evaluation by guidelines" is intended to be

recommended for this purpose. This method would involve the following actions:

a. Communication

Communicating to all units of the organization the characteristics which should be present in the candidates for their future assignment in managerial positions. These characteristics can be described in a manual which may contain also instructions regarding the observation and evaluation process.

b. Written Narratives

Requiring all commanding officers who have second-step candidates in their units to observe and evaluate them according to the desired personal characteristics and to write summarized narratives on their behavior and performance during the observation period.¹⁸ These narratives would then be submitted to a selection board (described later in the study) along with the commanding officer's final opinion regarding the appropriateness of his candidates for management education. The selection board's use of these narratives and the reports for classification of candidates according to their managerial abilities and behavioral qualifications will be discussed in the next step.

¹⁸This method is based on Flanagan's Critical Incident Technique for which the interested reader is referred to Psychological Bulletin, 1954, Vol. 51.

(1) Providing Opportunities for Performance

During this step the commanding officer should focus his attention on the candidate's behavior, and should use every opportunity for observing and evaluating him in terms of the guidelines.

Commanding officers would find this period an appropriate opportunity for delegating greater than normal responsibilities to candidates and for observing with attention how they handle difficult and unfamiliar situations.

Writing narratives on candidate's performance and behavior would be useful for later evaluation and rating, especially when greater responsibilities are delegated to them.

With a little ingenuity on the part of the commanding officers, many situations could be deliberately created for observation and evaluation of candidates in one or more of the personal characteristics of interest.

The commanding officer may artificially create ambiguous situations to observe and record the candidate's behavior in such settings. The commanding officer may well send the candidate to participate in committees at a higher level of command and later ask the opinion of his peers concerning the candidate's understanding of the integration of the different functions of the organization, his judgement.

If during the period in which the candidates are being observed natural significant changes in the work requirements and work environment do not take place, the commanding officers still would be able to observe the candidates' sensitivity and adaptability to new situations by manipulating certain aspects of their jobs. It would be possible, for example, to assign a special project to the candidate and to evaluate his planning, organizing and controlling abilities, etc.

(2) Observing and Evaluating

Of course commanding officers generally do evaluate their subordinate officers, either consciously or unconsciously, in many personal characteristics and abilities. But certainly their attention to the specific desired factors will be stimulated when their important role in the selection of the organization's future key people is elaborated and their efforts in accomplishing this important role is guided. Narrative reports on candidate's behavior would be reviewed by a selection board of high ranking members. This will have another stimulating effect on their attention and dedication.

However, the commanding officers should be instructed that they are not forced to give opinions necessarily on all behavioral job requirements when it is really difficult

to observe or evaluate the subordinate candidate in a certain characteristic. They must have the option of leaving it open rather than giving a forced but inaccurate opinion. However, in these cases it would be helpful for the selection board if the commanding officer specifies in his report why it has not been possible to evaluate the subordinate officer in the particular characteristic.

(3) Observation-Evaluation Instruments

With regard to the final opinion of commanding officers on candidates' appropriateness for management education, the use of a form with only three options and a space for additional comments might be recommended. The three options would be -- appropriate -- not appropriate, -- and no opinion, and the reason for only three options being that no single commanding officer would be able to determine the standing of a candidate among all others by rating him in such terms as; very appropriate, marginally appropriate, and the like. Judgement on the degree of appropriateness of candidates, as will be seen later, will be the responsibility of a selection board. For more clarity and for ease of subsequent use, besides the accompanying narratives on candidate's behavior, the commanding officers who categorize subordinate "inappropriate" on the Final Opinion Form, should write

clear-cut reasons supporting their opinions on the space for additional comments.

As a final point in this regard, it should be emphasized that throughout this step full cooperation and commitment of commanding officers is an essential factor for the success of the effort. Obviously taking a subordinate officer under continuous observation and writing narratives on his behavior and on the way he handles different responsibilities is a somewhat time-consuming and laborious task. But it will be a worthwhile effort of great benefit to the organization, not only for the purpose of improving the selection for management education, but also for other advantages explained later in the study. One important advantage, for both the organization and the individual officer, is that by making the narratives written on each candidate accessible to the candidate himself a very constructive network of feedback can be established.

3. Final Selection of Candidates

a. The Selection Board

As mentioned before, the actual and final selection will be the responsibility of a selection board. The members of the selection board must be mature and experienced officers having experience in a variety of jobs and they should preferably represent different functions of the organization at the time of selection. Among the members there

ought to be officers with a good deal of managerial experience. The members of the board must be helped by an officers' detailer and ^a representative from the Training Department expert in management education. The task of the selection board is so crucial for good results that there is no need for overemphasizing the necessity of selecting really capable officers as its members.

Just for convenience of presentation and in order to avoid confusion, the present step will be described under two distinct sub-steps -- namely; "preparation for selection", and the "actual selection." The first of the two substeps involves the rearranging of the needed data for selection in usable form. It includes also the analysis of narratives provided by commanding officers on candidates, and classification of candidates into three categories according to the behavioral job demands.

The second substep will consist of the actual use of the prepared and processed data on candidates for accomplishing the selection.

b. Preparation for Selection

The following data must be provided to the selection board;

- . The number of officers needed for education in each subspecialty.
- . The prerequisites of the school/s that provide the education.
- . The record of the past performance of the candidates and their personal jackets.

. The summary narratives written by commanding officers on their candidates' personal characteristics, and the final opinion of commanding officers on candidate's appropriateness for management education.

. The record of the educational background of the candidates.

The above data will need the following preparation and processing for facilitating their use in the selection:

- (1) Excluding the candidates who have been categorized as "inappropriate" according to the final opinion of their commanding officers. (this work might be done also by the Training Department before the formation of the selection board. But it seems that an overview of the narratives written on these candidates, and the reasons described for their inappropriateness, might help the selection board in classification of the remaining candidates).
- (2) Listing all the remaining candidates, for each subspecialty, in order of the past performance score. Generally the average of the scores of the last three years is used for similar purposes.
- (3) Listing all candidates for each subspecialty in order of their baccalaureate degree Grade Point Average.
- (4) Analyzing the summary narratives on candidates' behavior and personal characteristics, and classifying them into three ordinal categories. Candidates falling in the first

two categories would be equally acceptable as far as the factor of personal characteristics is concerned (with the exception of one case described in the next substep). The third category will consist of those candidates deemed inadequate by the selection board. The number of individuals falling in this category might be expected to be relatively small, and mainly consisting of these candidates whose commanding officers have not given any final opinion on their appropriateness. (The "no opinion" category on the Final Opinion Form).

Of course performing the above analysis and classification is the most important and the most difficult responsibility of the selection board. It involves reading and discussing narratives submitted on each candidate, resorting to personal "jackets", consulting the officers' detailers on some issues, arriving at consensus on each candidate's measure of managerial aptitudes, and perhaps reviewing and redoing the whole process a number of times for deciding on the final classification.

However, also this kind of evaluation and rating is a judgmental matter. But it is different from the present system, described in Part II, in that it provides for the following advantages;

- The final evaluation and rating of all candidates is performed by the same persons.
- The evaluators, when selected properly, would be mature and expert persons whose judgements might be expected to be more

acceptable throughout the organization.

- The fact that classification of the candidates on personal characteristics is based on documented reports and on consensus among the members of a selection board, would reduce to a great extent the feelings of the officers on the role of personal acquaintance and similar factors in the selection process.

c. Actual Selection

Once the task of classification of candidates in terms of the desired personal characteristics is carried out and the necessary lists are prepared the rest of the selection process becomes mechanical. The following order in use of the data for the actual selection is suggested;

1. In the first place, the selection should be on the basis of the standing of candidates in the list of the past performance scores. Of course the next factor to look for is the category of personal characteristics in which the candidates fall.

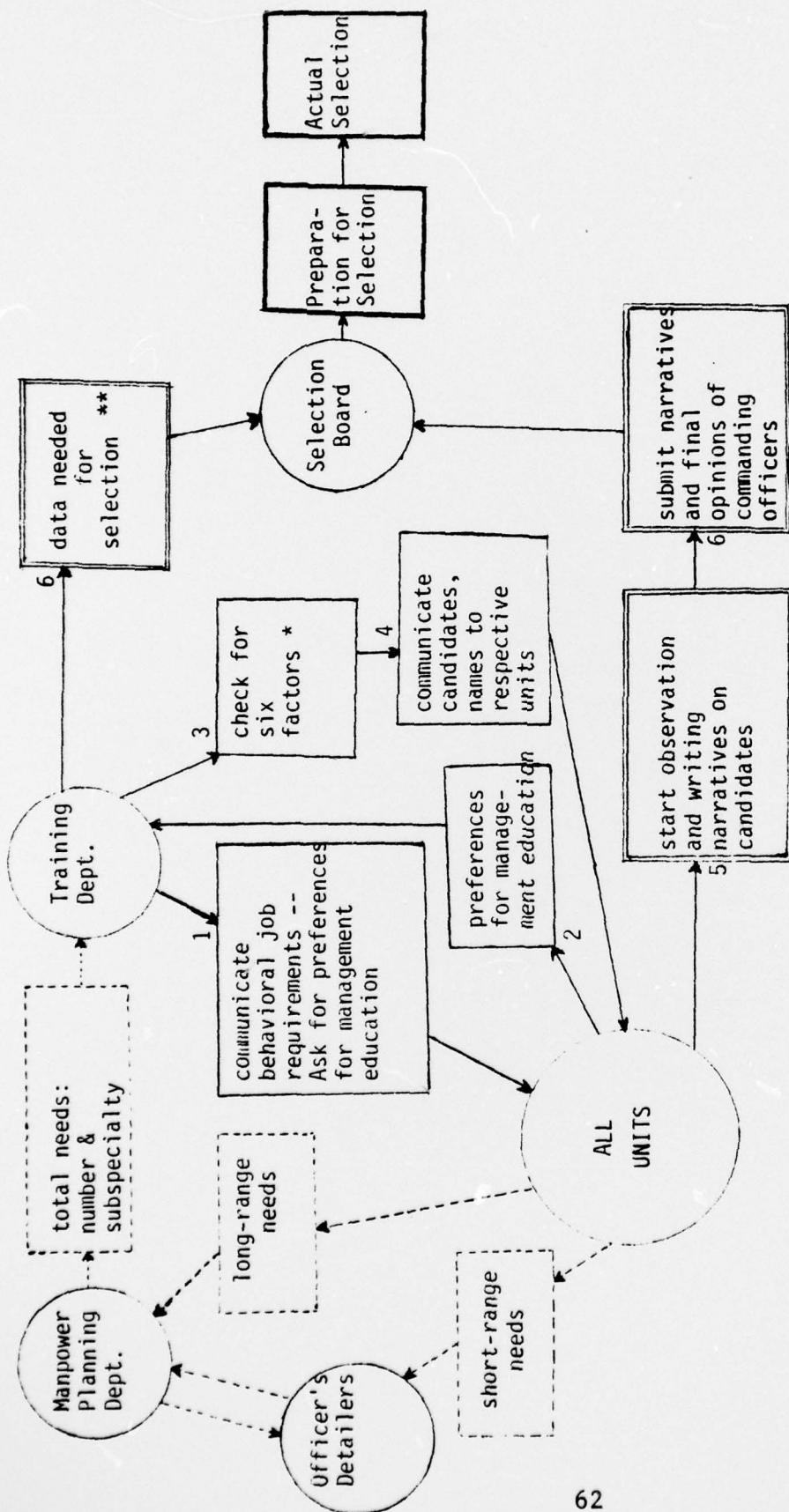
Thus the selection can start and proceed according to the order which appears on the lists of past performance scores (separated for different subspecialties) unless a candidate comes up to be in the "inappropriate" category of the personal characteristics. Such candidates will be skipped and the process would continue until the desired number of officers for each subspecialty has been selected.

2. If ~~two~~ candidates for the same subspecialty happen to fall in the same range of the past performance scores, the one in a higher category of personal characteristics would have the priority of being selected. It should be remembered however that when the scores of past performance are different, the candidate with the higher score will be selected, regardless of whether he is in the first or in the second category of the behavioral job demands. The relatively low reliance on the distinction between the first two categories, implicit in the above statement, can be justified by the difficulty of rating with objectivity the candidates in their behaviors. In fact human behavior has been considered too complex to be scaled along a few dimensions and then rated [39, 36]. Only the extreme cases of inappropriateness can be relied on with certainty.

In case even the categories of personal characteristics do not determine the choice between two candidates of equal past performance scores, the selection board should resort to the list of the educational achievements and select the candidate with the higher Grade Point Average in the baccalaureate degree.

C. Conclusion

The proposed selection model, except for the last two stages (i. e., preparation for selection and the actual selection) has been graphically represented in Diagram 1 to provide a readily referable summary of the proposal. This diagram also includes the events that



Events assumed to take place before the process of selection

1st step events

2nd step events

3rd step events

Numbers indicating the sequence of events

* The six factors are: Prior advanced training, designator, sea duty, educational background, experience, and past performance.

** Data needed for selection includes: No. of officers needed in each subspecialty, prerequisites of the school, past performance records and personnel jackets, educational background record.

DIAGRAM 1

are supposed to take place before the selection process gets started.

The purpose of these events being that of determining the number of officers which must undergo management education in each subspecialty annually.

As emphasized before, along this part of the study the intent has been one of describing the general structure and the main steps of a selection model. Details of the process, unless necessary for clarity of the discussion, have been intentionally avoided. However, before terminating the study it seems useful to mention some general comments and to explain some of the additional advantages of the proposed system of selection.

First, the above model can certainly contribute considerably to the effectiveness of management development and management education efforts of the organization, if the step of analysis and classification of candidates in terms of the behavioral job demands gets done properly. Of course this system too, perhaps like any other system of assessment and selection, will be far from perfect prediction. In discussing the usefulness and limitations of psychological testing, French [40] considers the utility of these tests in their capacity to improve averages in selection rather than making perfect predictions. Perhaps the same idea could be extended also to the utility of this model, when compared with the organization's present system of selection.

However, a considerable advantage of the proposed system of assessment is that it can be a very constructive learning process for

the second-step candidates. Being delegated greater responsibilities, involvement in varying work settings, and receiving feedback on behavior and on performance can be a very effective learning opportunity for all candidates who go through this process, regardless of whether they will be selected for management education eventually or not.

Second, even for selection of a relatively small number of officers, this whole process would not be a waste of time and effort. In addition of providing for a better choice among the candidates, the information gathered during the second step can be used also for other purposes. It can be used, for example, in selection of officers for; special assignments, managerial jobs, special-project managers, etc. If this process turns out to be not very cost-effective for annual selection of a relatively small number of officers for management education, the formation of the selection board can be planned to take place every eighteen months or even every two years (in such cases in each setting of the board in addition to the number of officers who will certainly undergo the education, a number of reserves can be selected also to cover unforeseen needs).

Third, through encouraging feedback from commanding officers and different levels of management, it will be possible to correct or to complete the list of the desired personal characteristics, and thus, to adjust it for the changing job requirements along the time.

Finally, this model would be equally applicable for selection of officers for any job or assignment that requires certain personal

characteristics, given that a reasonable period of time will exist for observation and evaluation of candidates. Of course, the kind and the importance of the characteristics will change from job to job and even from time to time, to suit the particular behavioral job demands.

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